Aortic Regurge

c/o

Awareness of heart beats, one week duration.

HPI

The condition started 10 years ago by gradual onset, progressive course of rapid regular **palpitation** increased with exertion. The patient sought medical advice, investigated by chest X-ray, ECG and ECHO and the patient was advised to be operated but unfortunately, the patient refused the operation.

Six years later, the patient developed retrosternal constricting **chest pain** radiated to the left shoulder increased by exertion, relieved by rest and oral treatment and lasted for 5 minutes. The patient sought medical advice, investigated by chest X-ray, ECG and ECHO, treated by sublingual nitrate.

The patient was quite well till one week ago when he re-suffered from gradual onset, progressive course of rapid regular **palpitation** increased with exertion.

No symptoms of **pulmonary congestion**
No symptoms of **low COP**

Past history

- There is past history of **rheumatic fever** since he was 10 years old, manifested by fever and arthritis, investigated by CBC, ESR and ECHO, treated by aspirin and the condition relieved and he was advised to take long acting penicillin for life with no recurrence.
- No DM no HPN.
- No past history of operations or drugs.

Family history

- No consanguinity
- No common diseases
- No similar condition

General exam

- **Temperature** : 37
- **Blood pressure** : 150/50
- **Pulse**: Regular pulse, 75 /minute, big pulse volume, water hammer pulse, vessel wall is not felt, equal on both sides with intact peripheral pulsations, no radio-femoral delay.
- **Average built.**
- **No cyanosis**, pallor or jaundice.
- **No special decubitus** (the patient is lying free flat comfortable in bed).

• Head &neck

- **Corrigan sign:** strong visible carotid pulsations.
- **Carotid thrill** (shudder) :systolic thrill.

• U.L

- **Big pulse volume**
- **Water hammer pulse:** rapid upstroke, rapid downstroke, big pulse volume

• L.L

- **Pistol shot** : loud sound with each systole.

Local exam

• Inspection and palpation

- Normal shape of chest.
- No dilated veins.
- No scars of cardiac surgery.
- No pericardial bulge.
- Regarding pulsations :

Apex: Regular apex, 75/min, lies in left 5th space MCL, localized, hyperdynamic in character, with no thrill and no rocking movement. Otherwise, apart from epigastric pulsations originating from aorta no other visible or palpable pulsations.

• By palpation only :

- **Pulsations** the same as above.
- **Palpable sound** : there is no palpable 1st heart sound or diastolic shock.
- **No thrill** either on base, left parasternal area or on apex.

• Percussion :

Hepatic dullness in the Rt. 5th space MCL, no dullness in the Rt. parasternal area, both aortic and pulmonary areas are resonant, preserved waist of the heart, no dullness outside the apex, lower end of the sternum is impaired note with dull bare area.

• Auscultation

- **2nd sound** normal or muffled.
- Diastolic soft blowing **murmur**, maximum intensity over the 2nd aortic area propagated to the apex, increased on setting, leaning forward and holding breath in full expiration, it's organic, grade III/VI with no thrill.

• NB :

In AR: notice you can hear systolic soft murmur localized over the 1st aortic area with no associated thrill (functional murmur of relative aortic stenosis).

To be differentiated from double aortic lesion in which the murmur is propagated to the neck and the apex, associated with thrill and the patient complains of low COP symptoms.

Investigations

- **ECG** for chamber enlargement and ischemia.
- **CXR** for chamber enlargement.
- **ECHO** (investigation of choice): for anatomical functional aetiological diagnosis and for detection of complication.

➢ Treatment

- **Medical** (prophylactic and symptomatic).
- **Surgical** (valve replacement).

Diagnosis :

Rheumatic heart disease, in the form of isolated aortic regurge, the patient is compensated and not complicated.

• NB :

- Rheumatic from history.
- AR from history, exam (peripheral signs of AR, hyperdynamic apex epigastric pulsation from aorta and data of auscultation may help you).
- Compensated from (absence of symptoms and signs of pulmonary congestion). Don't forget signs of LVF :apical gallop, pulsus alternans, bilateral basal crepitations.
- Complicated or Not.